

SYSTEM AND METHOD FOR IMPROVING DYNAMIC RANGE OF

ANALOG-TO DIGITAL CONVERTERS

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5 ABSTRACT OF THE DISCLOSURE

An analog to digital converter ("ADC") is provided that can be used in a system with an internal or external CPU or in an ASIC. The ADC includes a band gap reference (BGR) circuit whose output is internally
10 coupled to an analog input of the ADC; and a positive analog supply voltage (AVDD) and a positive analog reference voltage (REFP) operationally coupled to a same voltage supply; wherein a BGR value is used by a CPU as a calibration constant for determining an AVDD
15 value, a REFP value, and a Bit Weight value.